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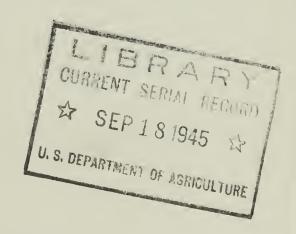
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FARM CREDIT ADMINISTRATION

UNITED STATES DEPARTMENT OF AGRICULTURE

WASHINGTON, D.C.

WARTIME SELLING OF FRUITS AND VEGETABLES



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Miscellaneous Report No. 86

June 1945

UNITED STATES DEPARTMENT OF AGRICULTURE FARM CREDIT ADMINISTRATION 1. W. DUGGAN, GOVERNOR

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SUMMARY

Cooperatives, as other merchandising organizations during wartime, have had to operate under conditions of decreased labor supply, container shortages, limited transportation facilities, and other deficiencies. They have been subject to price ceilings, fixed margins, and rationing, and changes in these regulations have often required immediate adjustments. These conditions have posed real problems to fruit and vegetable associations.

While it is too early to determine the ultimate effect of wartime adjustments on cooperatives, yet it is not too soon to examine the changes that have taken place in grading and packing, sales practices, distribution, prices and margins, and membership relations.

In grading and packing citrus fruits, Northwest apples, and early potatoes, some adaptations but no fundamental changes are apparent at present. The associations included in this study, with few exceptions, have continued their normal grading practices. They have been able to distribute greater percentages of lower grade products through fresh marketing channels. They have discontinued fancy packaging and have used a greater percentage of standard containers although shortages at times have resulted in the utilization of any suitable types that could be obtained.

These associations, in common with other shippers of fresh fruits and vegetables, have been in the unusual position of being unable to satisfy completely the market demand for their products. The dominant position of shippers over buyers, stemming from strong consumer demand, together with price ceilings, has had its effect upon their sales practices.

The percentage of sales through the terminal fruit auctions has declined for those associations that use these outlets. A number of associations have employed brokers to a lesser extent during the war period. The percentage of sales to chain stores has declined.

These associations, since 1942-43, generally have been able to make their sales on whatever basis appeared to offer the greatest returns and reduce the risks in marketing and transportation. The Florida citrus associations, for example, increased the percentage of sales made on an f.o.b. basis. The Northwest apple marketing associations in 1943-44 made 25 percent of their sales on a delivered basis so as to take full advantage of periodic increases in the ceiling price. The potato marketing associations in the early producing areas during 1943 used joint-account sales in order to share in the receivers' margins, and continued delivered sales mainly to receive the mark-up allowed for in-transit risks.

NOTE - The author desires to express appreciation to the officials of the cooperatives who supplied that data pertaining to their organizations; and to M. C. Gay, Etta C. Emmons, John L. Wann, and others of the Cooperative Research and Service Division, and J. H. Heckman, War Food Administration, for their suggestions and assistance.

An increase in the percentage of carlot shipments to the small and medium sized markets, in 1942-43, has been due mainly to a reduction in transportation by truck into nearby areas and to an increase in direct carlot movement to cities and towns that normally are served by truck from terminal markets. At the same time, there is evidence that nearby markets have been supplied at the expense of distant markets especially during periods of short supplies. This was true in the marketing of California citrus and early potatoes.

The experience of associations reporting indicates that, with few exceptions, membership rolls have been maintained or increased. Many associations have waiting lists. The ability of cooperatives to continue to make favorable returns to members and patrons and to maintain and in some cases to expand their services, because of established sources of materials and supplies and more efficient utilization of personnel, is paying dividends.

Prices of oranges, apples, and potatoes have increased substantially since 1940-41 as indicated by the price series that were selected for comparison of retail, wholesale, and farm prices of these products. The spread between prices received by farmers and f.o.b. prices, and between wholesale and retail prices, also has widened. These increases reflect the strong wartime demand, increased costs in distribution because of higher wage payments and higher material costs, and the ability of distributors to obtain greater earnings for their services.

Although in the immediate future production of fruits and vegetables will probably remain near present levels with some exceptions, it is unlikely that the demand for them will continue to be generally greater than the supply for any long period after the war. In terms of the trade, there will again be a buyer's rather than a seller's market and keen competition will again be the rule.

Cooperatives are anxious to look ahead and plan operations to meet these changing conditions. They are vitally interested in readjustments that may be required in grading, sales practices, and distribution. For example, war programs for fruits and vegetables will no doubt be dropped as soon as the danger of inflation is past and their influence on grading and sales practices will cease. Yet some changes, such as the shift to selling products on a weight rather than a count basis, may be adopted permanently. Agricultural labor will be more plentiful, but wage rates may continue to be high and should accelerate the use of labor-saving machinery. Developments in transportation and refrigeration may give rise to widespread changes in distribution methods.

Associations will be in much stronger position to hold their gains in selling methods through coordinated group action, particularly when they control a considerable portion of the market supply for a particular commodity. They should be alert to the possibilities of integration and streamlining of marketing functions with a view to wider distribution and more complete service on an economical basis.

WARTIME SELLING OF FRUITS AND VEGETABLES

By
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Selling of fruits and vegetables since 1941 has been characterized by increasing demand, lack of competition, shortages of labor and materials, and effects of wartime programs designed to prevent inflation and to allocate supplies for different classes of consumers. Any appraisal of future prospects for selling these commodities must recognize the changes that have taken place under these conditions and the extent to which these changes will be retained or modified in the postwar period.

Fruit and vegetable cooperatives in wartime had to adjust their operations to emergency regulations and conditions. These meant the abandonment or modification of old practices and the establishment of many new ones. Increasing complexity of operations compelled the adoption of methods that are flexible as well as ingenius if the associations were to perform their necessary functions and services to growers and consumers.

To provide information for the use of cooperatives in evaluating these adjustments and in planning for postwar operations, a study of the operations of selected fruit and vegetable cooperatives was made.

SCOPE OF SURVEY

Cooperatives handling citrus fruits, apples, and potatoes were selected for this study because these commodities are relatively important in fresh fruit and vegetable marketing and because large quantities of each are sold cooperatively. Also, more associations are concerned with these products than with any other fruits and vegetables. Later it is planned to incorporate in the study additional material from cooperatives selling other fruits and vegetables.

Data were obtained from the California Fruit Growers Exchange, the Rio Grande Valley Citrus Exchange, five citrus associations in Florida, six apple marketing cooperatives in Washington, and four potato marketing associations in Florida, North and South Carolina. Information also was obtained from market summaries compiled by the Federal-State Market News Service and correspondence and interviews with officials of a number of other cooperatives, State extension and marketing specialists, and members of the industry.

In 1938, the latest date for which complete figures are available, more than 65 percent of all fruit marketing associations sold citrus fruits or apples and more than 40 percent of all vegetable marketing associations sold potatoes. Citrus fruit and apples were that year by far the largest part of all the fresh fruit marketed cooperatively, together totaling about 70 percent; and potatoes totaled about 45 percent of all fresh vegetables marketed by cooperatives. Hyre, F. M., and others. A Statistical Handbook of Farmers Cooperatives. F.C.A. Bul. 26. 334 pp., illus. 1938.

The citrus marketing associations in Florida, the apple marketing associations in Washington, and the potato marketing associations in the southeastern States which were selected for study are believed to be representative of associations operating in these areas. The sample includes both large and small associations. Some are affiliated with a central marketing agency and others are "independents."

Data from the California Fruit Growers Exchange and the Rio Grande Valley Citrus Exchange cover a combined annual volume of approximately 100,000 carlot equivalents. The 15 associations from which detailed information was obtained have sold an average of more than 11,000 carlot equivalents annually since the 1940-41 season. In addition, data that were selected from Market News Summaries cover all shipments from a particular producing area. Use of all area shipments seemed desirable in the discussions of distribution by size of market and price trends.

Data were compiled for the last four marketing seasons starting with 1940-41. The first two seasons can be considered as more or less normal marketing periods immediately preceding the wartime period, the latter two as abnormal with marketing practices and prices influenced by governmental controls. Ceiling prices and margin control were established in November 1942 for potatoes, in December 1942 for citrus fruits, and in October 1943 for apples. Thus, it is possible at present to compare wartime operations with those in the two preceding seasons. It is planned to continue this study throughout the period of price control and into the postwar period so as to give consideration to the readjustments that will take place following the war.

Percentages were calculated on the basis of the total number of carlot, or equivalent, sales of the associations in each commodity group rather than from the averages of the percentages of all associations, as was done in an earlier study of sales practices of cooperatives.³ The present method was adopted because here, in contrast to the procedure followed in the earlier study, each commodity group was treated separately and analyses were made only of the changes in the selling of these separate commodities.

GRADES AND PACKING

Several significant changes have taken place in the grades and packing of fresh citrus fruits, Northwest apples, and potatoes in the few seasons immediately past. About 50 percent of the associations reporting were able to sell greater quantities proportionately of these fresh fruits and vegetables of lower grades than they usually could. It is probable, in fact, that in many instances they could have sold an even greater percentage of lower grade products on the fresh market except for sales

²Office of Price Administration, Maximum Price Regulation 271, Certain Perishable Food Commodities, Sales Except at Retail, November 7, 1942; Maximum Price Regulation 292, Sales of Citrus Fruits by Packers, Brokers, Auction Markets, Terminal Sellers and Intermediate Sellers, December 21, 1942; Maximum Price Regulation 426, Amendment 9, Fresh Fruits and Vegetables for Table Use, Sales Except at Retail, October 5, 1943.

³Heckman, J. H., Selling Fresh Fruits and Vegetables Cooperatively. F.C.A. Bul. 49, 78 pp., illus. 1941.

restrictions that were designed to reserve certain quantities for processing. The increase in sales of combination grades was in part the direct result of shippers obtaining the same prices for combination grades as for U. S. 1 grade, especially when prices were at the ceiling. In part it came from the disinclination of packers to attempt to sort out all U. S. 1 fruit when shortages and inexperience of graders were prevalent.

It might even have been possible to sell some of these fruits and vegetables orchard run or field run during all or part of each marketing season. Nevertheless, the associations in general have maintained their usual grading and sizing operations with only one notable exception, in potatoes. Continuation of these operations was desirable for various reasons. For some commodities grading was essential because certain grades had to be diverted to processing (apples in some producing areas). For some highly perishable fruits and vegetables, lower grades will not stand shipment to distant markets, and hence under any price situation only their better grades can be marketed fresh. Further, many associations have continued to offer desirable grades and packs to maintain favorable trade relations with old customers who, they believe, will be needed a few years hence.

CITRUS

Grades

According to reports of the Federal-State Market News Service on grade distribution of carlot shipments of Florida citrus, ⁵ the percentage of the total citrus fruit sold as U.S. 1 declined during 1942-43 and 1943-44 although not greatly. The percentage sold in combination grades increased, and that sold in lower grades has remained about the same (table 1). These changes in grade distribution are not great. They indicate that, in general, shippers of Florida citrus have altered their grading practices but little.

Table 1. - Grade distribution of Florida citrus shipments, 1940-41 to 1943-44.

SEASON		VERAGE PERCEN	TAGE OF STAND	ARD BOXES OF	INDICATED GRAI	DE
BEGINNING OCTOBER	U. S. NO. 1	COMBIN- ATION	U. S. NO. 2	U. S. NO. 3	CULLS	TOTAL
1940-41	12	58	28	2	(a)	100
1941-42	11	59	28	2	(a)	100
1942-43	8	64	27	1	(a)	100
1943-44	8	66	24	2	(a)	100

aLess than 1 percent.

Source: Compiled from Annual Summaries of Market News Service, United States Department of Agriculture.

Combinations of U. S. No. 1 grades with other grades.

⁵Grades of citrus fruit sold by the five Florida associations were not recorded originally. Statistical data furnished later by two associations and reports from others indicate, however, that the percentages of the various grades sold for fresh shipment have varied but little from those given in Table 1.

The percentage of oranges sold by the California Fruit Growers Exchange under its Sunkist brand (U.S. No. 1 grade or better) has not decreased greatly since the start of the war (table 2). In contrast the Exchange's sales of lemons under the Sunkist brand have declined more than 12 percent. Lemon prices usually have held firmly at the ceiling and these prices have produced an increase in sales of lower grades. There has been considerable variation in grading practices among the local cooperatives associated with the Exchange. Some associations have practically discontinued packing Sunkist, others have continued their normal distribution of grades.

Table 2. - Grades of oranges and lemons sold by California Fruit Growers Exchange for the fresh market, 1940-41 to 1943-44

		AVERAGE PERCENTAGE OF									
SEASON BEGINNING	VALENCIA ORANGES			NAVEL ORANGES				LEMONS			
NOVEMBER	SUNKIST	LOWER GRADES	TOTAL	SUNKIST	LOWER GRADES	TOTAL	SUNKIST	LOWER GRADES	TOTAL		
1940-41	67	-33	100	74	26	100	65	3 5	100		
1941-42	62	38	100	76	24	100	56	44	100		
1942-43	63	37	100	80	20	100	58	42	100		
1943-44	64	36	100	81	19	100	53	47	100		

^aU. S. 1 or better.

Source: Unless otherwise stated, all tables are compiled from original association records.

. Containers

Some rather decided shifts have taken place in types of containers used by the five citrus associations in Florida. A decline in the percentage of fruit packed in nailed boxes since 1940-41 has been offset by an increase in the percentage packed in wire-bound boxes, bushel baskets, and mesh bags (table 3). The increase in the use of wire-bound boxes is indicated by the higher percentage of mixed loads of wire-bound boxes and other containers.

Table 3. - Containers used for fresh shipments of citrus by five cooperatives in Florida, 1940-41 to 1942-43

		AVERAGE PERCENTAGE OF							
SEASON BEGINNING OCTOBER	NUMBER OF SALES	WIRE- BOUND BOXES	WIRE- BOUND BOXES AND OTHERS ^a	NAILED BOXES	MESH BAGS	BUSHEL BASKETS	BULK	OTH ERS b	TOTAL
1940-41 1941-42 1942-43	6,244 5,511 6,449		6 12 11	29 20 18	1 2 5	(°)	1 (°) (°)	2 2 2	100 100 100

^aMixed loads of wire-bound boxes and other containers.

Includes a few fibreboard boxes and mixed loads of all containers except wire-bound boxes.

cLess than 1 percent.

These trends are further substantiated by data assembled from annual summaries of citrus marketing in Florida, which indicate a steady increase in the use of wire-bound boxes and a decrease in the use of nailed boxes by all shippers of Florida citrus. Scarcity of the standard boxes has worked a particular hardship on associations, like those in the Indian River section, which normally use them extensively.

In Texas, also, there has been a trend away from the use of standard nailed boxes, accentuated in the last few seasons as manufacturers have turned to more profitable lines of manufacture. In California, however, associations have continued to use nailed boxes; and, although supplies have been short at times, usually they have been adequate.

A high percentage of all the citrus associations reporting made some use of baskets, second-hand boxes, and any other suitable containers that were available. In California in 1934-44 second-hand boxes, most of them returned West Coast empties, were used extensively. It was reported that their cost, including the cost of renovating, has been about the same as that of new containers.

In Florida during the last four seasons, the use of mesh bags for citrus shipments has increased substantially as shown in table 4. The increase in the use of 8-pound mesh bags in 1943-44 came in direct response to requests of retailers, particularly some of the larger chain-store companies, for fruit packed in consumer-size packages.

Table 4. - Mesh bag containers used for Florida fresh citrus shipments, 1940-41 to 1943-44

SEASON BEGINNING OCTOBER	CARLOT EQUIVALENT	AVERAGE PERCENTAGE OF CARLOTS IN INDICATED CONTAINERS						
	E WUI VALLENI	4/5 BU.	20 LB.	8 LB.	OTHER	TOTAL		
1940-41	4,099	72	10	16	2	100		
1941-42	2,997	65	10	19	6	100		
1942-43	8,258	90	3	5	2	100		
1943-44	6,266	62	7	30	1	100		

Source: Compiled from the annual summaries of Market News Service, United States Department of Agriculture.

Before the 1942-43 season the California Fruit Growers Exchange wrapped all citrus stamped "Sunkist" individually. Temporarily this requirement has been suspended because packing-house labor has been sharply curtailed

⁶Figures compiled from annual summaries of Market News Service show an increase of from 59 to 78 percent in the use of wire-bound boxes, and a decline of from 35 to 14 percent in the use of nailed boxes from 1940-41 to 1943-44.

In November 1943 the War Production Board restricted the percentage of shipments of each individual shipper to be made in wooden boxes to 96 percent in California and Arizona, 90 percent in Florida, and 85 percent in Texas. In June 1944 this order was amended to permit shippers to substitute used boxes for nonwooden containers. In California and Arizona shippers had the choice of shipping 4 percent in nonwooden containers or 8 percent in second-hand boxes. This accounted largely for the heavy use of second-hand boxes in California and Arizona. All restrictions on the use of wooden boxes for citrus have been removed for the 1944-45 season. It is reported that practically no second-hand boxes, and fewer mesh bags are being used in all the producing areas.

and premiums allowed for wrapped fruit have been sufficient to cover only the costs of wrappers. 8 Oranges and grapefruit have been sold by the Exchange unwrapped except when prices have been below the ceiling or when the fruit would not ship well unwrapped. Lemons, as experience has shown, always need to be wrapped, and Navel oranges need wrapping when their condition is below standard. In 1942-43 about 85 percent of the Valencias were sold unwrapped by the Exchange when prices were at the ceiling.

APPLES

Grades

Table 5 indicates the changes in grades of apples sold by six associations in the Northwest. These cooperatives have increased their sales of combination Extra Fancy and Fancy grades and of mixed sales of High and Low grades in 1943-44. Sales of C grade were decreased somewhat because apples of this grade, except Delicious, were required to be diverted to processors.

Table 5. - Distribution of fresh apple shipments of six Northwest apple marketing cooperatives, 1940-41 to 1943-44

SEASON	NUMBER		AVERAGE	PERCENTAGE (OF SALES OF	INDICATE	D GRADE ^a	
BEGINNING SEPTEMBER	OF SALES	EXTRA FANCY	FANCY	COMBINATION EXTRA FANCY AND FANCY ^b	COMBIN- ATION HIGH AND LOW ^C	C GRADE	OTHER	TOTAL
1940-41	^d 2,146	26	35	24-	7	8	(f)	100
1941-42	°1,711	27	35	23	9	6	(f)	100
1942-43	3,166	32	33	17	8	10	(^f)	100
1943-44	2,336	17	11	54	14	4	(f)	100

^aThe number of boxes of each grade in a sale was not tabulated except where only one grade was sold. Percentages shown are for sales of a particular grade or sales including a number of grades.

Because all grades and sizes of apples usually brought ceiling prices, and also to save labor, many associations in 1943-44 stored their graded and packed apples in warehouses without segregating them by grades and sizes. During the shipping season the cars were loaded and sold with this mixed run of grades and sizes. In previous seasons, however, many carlots consisted of only one or two grades and relatively few sizes.

In view of the fact that apples sold at the ceiling during the 1943-44 season, it is surprising that changes in grading were no greater than those indicated. These associations have made an effort to maintain their grade and pack standards even though there has been no price advantage in doing so.

b Includes sales of Fancy and better.

^CMixed sales of Extra Fancy and Fancy and lower grades.

d₅ associations.

e4 associations.

Less than 1 percent.

⁸At present no additional allowance is made in ceiling prices for wrapped fruit.

Containers

Table 6 indicates the types of packs used by the six apple marketing cooperatives. These associations have used about the same percentage of standard boxes during each of the four seasons just past. Several during 1943-44 have also pressed into service odd-lot containers accumulated during previous seasons. Again, there has been a slight increase over the 4 years in jumble packs and bulk sales.

Table 6. - Containers used for fresh apple shipments of six Northwest apple marketing associations, 1940-41 to 1943-44

		AVERAGE PERCENTAGE OF									
SEASON BEGINNING SEPTEMBER	NUMBER OF SALES		WOODEN 1	BOXES		CARD-	7577 77	mam. 7			
		STANDARD PACK	JUMBLE PACK	OTHER	TOTAL	BO ARD BOXES	BULK	TOTAL			
1940-41	^a 2,146	90	1	5	96	3	1	100			
1941-42	b1,711	86	2	4	92	4	4	100			
1942-43	3,166	91	2	2	95	3	2	100			
1943-44	2,336	86	5	3	94	2	4	100			

associations.

It should be stated here that the percentage of bulk shipments made in 1943-44 by these six associations does not reflect the percentage for the Northwest as a whole. It was reported from other sources that from 15 percent to 20 percent of the fresh shipments in 1943-44, for the area as a whole, were bulk sales. This was an increase for the area coming in part as a consequence of the shortage of containers, but in the main from a strong demand for apples and the establishment of maximum prices on a pound rather than on a box basis.

POTATOES

Grades

The early-potato marketing associations included in this study show the effect of market conditions in 1943 in more vivid contrast than either of the other commodity groups. Three of them marketed their 1943 crop during May and the first 2 weeks in June. Potatoes were extremely scarce in the United States at that time, and this scarcity made it possible to sell those of any grade and size at ceiling prices and under sellers' terms. One association which in previous seasons shipped only U.S. 1 potatoes sold all its potatoes field run. The others, although continuing their grading, sold considerable quantities of lower grades despite the fact that in previous seasons practically all sales were U.S. No. 1 grade. The fourth association sold its 1943 crop during the latter part of June and in July, when supplies were more plentiful, and as a result found it necessary to grade all potatoes in the usual manner to satisfy the trade.

Grading practices varied so widely in the seasons 1941-43 among the four associations that the figures for each association are shown separately in table 7. While data have not been assembled for the 1944 season,

b4 associations.

reports from associations B and C indicate that most of their potatoes sold have been of U. S. No. 1 grade.

Table 7. - Grades of potatoes sold by four southeastern early-potato marketing cooperatives, 1941 to 1943

mar ne of the occopiant of the total								
ASSOCIATION			AGE PERCENTAG	E OF SALES (RADING			
AND SEASON ^a	U. S. _b	COMBINA- TION c	UTILITY AND COMMERCIAL	FIELD RUN	OTHER	TOTAL		
Association A								
1941	100	_	_	-		100		
1942	100	_	_	_	-	100		
1943	_	-	_	100	-	100		
Association B								
1941	100		_	_		100		
1942	99	1	_	-	_	100		
1943	54	33	(a)	12	1	100		
Association C								
1941	96	1	3	_	_	100		
1942	96	2	2	_	-	100		
1943	90	1	7	-	2	100		
Association D								
1941	- 100	_	(d)	_	-	100		
1942	98	_	2	_	-	100		
1943	98	1	(d)	_	1	100		

^aSeason beginning in April.

Containers

Before 1943 the four associations marketing early potatoes sold on the average more than one-third of their potatoes in containers other than 100-pound bags (table 8), principally because some of the trade normally demands 50-pound sacks and tub bushels. It was reported, however, that many times the additional price obtained for potatoes in these smaller containers would have been insufficient to cover their additional cost. In 1943 because ceiling prices could be obtained for potatoes regardless of type of package, and partly because additional labor was involved in packing and handling smaller containers, potatoes were sold only in 100-pound bags. Burlap was scarce, hence some cotton was used. One association shipped approximately 30 percent of its potatoes in cotton bags.

Table 8. - Containers used for potato shipments of four southeastern early-potato marketing cooperatives. 1941 to 1943

SEASON	NUMBER		AVERAGE PERCENTAGE OF							
BEGINNING APRIL	OF SALES	100-LB. SACKS	50-LB. SACKS	TUB BUSHELS	BARRELS	MISCEL- LANEOUS	TOTAL			
1941	1,834	64	18	13	1	3	100			
1942	2,638	66	19	14	1	3	100			
1943	2,399	100	(a)	(a)	(a)	(a)	100			

Less than 1 percent.

b Includes sizes A and B.

^cAll combinations of U. S. No. 1 and lower grades. Not a combination grade but mixed sales of U. S. No. 1 with lower grades.

dLess than 1 percent.

SALES PRACTICES

Three factors with regard to selling practices were recorded: Method of sale, type of sale, and type of buyer.

"Method of Sale may be defined as the mechanical manner in which a transaction is handled as it relates to the intermediary agencies employed, if any, and the location of the buyer at the time of sale." Classifications are as follows: Through terminal broker, through shipping-point broker, direct to terminal buyer, direct to buyer at shipping point, through terminal auction, and on consignment. Two of these categories may need further clarification. The term "sales through terminal broker" means that the broker was located in the market and the sale was made through him usually by mail or wire; the term "direct to buyer at shipping point" implies that the buyer was at the shipping point and made his purchase there. For example, large percentages of fruits and vegetables sold to chain stores are included in this latter classification since the chains maintain buying offices in most important producing areas.

By type of sale is meant the legal form or terms of transaction. 10 Classifications used are as follows: f.o.b., delivered, 11 price arrival, and joint account. A number of minor types also were recorded but were grouped under "other types." These classifications do not include all the various sales types used in selling fresh fruits and vegetables. Still, they are the most important types employed for sales between country shippers and distributors.

Buyers have been classified as chain stores, receivers, wholesalers, brokers, auction buyers, local buyers, and Government and Quartermaster Corps. These classifications, in general, are those given by the produce-rating agencies or those commonly used by the trade. While the term "wholesaler" usually refers to all intermediate sellers, its use herein includes shippers and truckers. "Other buyers" includes wholesale grocers, independent retailers, processors, buying pools, and unknown buyers. Since many buyers, such as receivers, commission merchants, jobbers, and brokers, act in more than one capacity, each is classified under his principal type of business based on information received from the produce-rating books and the associations.

CITRUS

Methods of Sale

The most pronounced change in sales methods for citrus, as well as for other fruits, has been the declining use of terminal fruit auctions (table 9). Each of the citrus associations reporting, except one in Florida, has sold almost progressively smaller percentages of its fruit by this method from 1940-41 to 1943-44. The greatest shift from these

⁹See page 4 of reference cited in footnote 3.
10For definition of types of sale see definition of terms, page 31.
All consignment sales are listed under delivered sales.

auctions has occurred in associations that usually do not sell a high proportion of their fruit this way. For example, in one Florida association terminal auction sales dropped from approximately 20 percent of total sales in 1940-41 to 10 percent in 1942-43 and to 5 percent in The decline in the percentage of terminal auction sales has been compensated largely by an increase in the percentage of nonbrokerage sales by the five Florida associations and by an increase in the percentage of brokerage sales by the Rio Grande Valley Citrus Exchange.

Table 9. - Methods of sale used by seven cooperatives marketing fresh citrus, 1940-41 to 1943-44

				CRAGE P	ERCENTAC	E OF SA	LES BY	METHOD	IN			
METHOD	METHOD CALIFOR			NIA ^a		FLORIDA ^b			TEXAS ^C			
	1940- 41	1941- 42	1942- 43	1943- 44	1940- 41	1941- 42	1942- 43	1940- 41	1941- 42	1942 - 43	1943- 44	
Auction	47	45	33	25	40	36	28	18	18	10	7	
Brokerage	53	55	67	75	24	19	24	40	39	50	48	
Nonbrokerage		00	67 75	07 13	36	45	48	42	43	40	45	
Total	100_	100	100	100	100	100	100	100	100	100	100	

^aCalifornia Fruit Growers Exchange, season beginning November.

5 associations, season beginning October.
Rio Grande Valley Citrus Exchange, season beginning October.

The greatest commodity shift from terminal auction selling of citrus occurred in connection with sales of Florida tangerines. In the three seasons from 1940-41 to 1942-43, in average figures, 65 percent of the total carlot shipments of the associations were sold at the auctions; but in 1943-44, when prices were consistently at the ceiling, only about 15 percent.

The principal contributory factors, as reported, to the decline in terminal auction selling have been the increased by-passing of the auctions . (1) by wholesalers, who have had to take every precaution possible to secure sufficient supplies; and (2) by sellers who, when ceiling prices prevail, are assured of maximum prices for all grades and sizes by private sale. Auction selling always presents the possibility of merchandise of the less desirable grades and sizes being discounted even when prices generally are at ceiling levels. Many associations that prefer to make private sales and customarily use the auction markets only when other sales are not possible, of course, welcomed the opportunity of increasing their private sales.

That terminal auction volume has declined while prices have been at the highest (the ceiling) is more or less a reversal of the usual movement of fruit through the auctions. Under normal conditions of free price, auction sales generally are directly proportionate to price changes. As prices rise in response to greater demand or because of decreased volume, competitive bidding becomes keener with the result that higher prices can be realized from auction sales than from private sales. But, with maximum ceiling prices in effect this advantage of competition disappears and the incentive to sell at auction on a rising market is removed.

Types of Sale

The five Florida citrus marketing associations included in this sample increased the percentage of their f.o.b. sales more than 20 percent from 1940-41 to 1942-43 (table 10). This increase was offset by almost equal percentage declines for both delivered and terminal auction sales. The strong position of the seller is reflected in this shift, since f.o.b. sales are preferable to most associations and shippers because risks in transportation and price changes are borne by the buyer.

Table 10. - Types of sale used by five cooperatives marketing Florida fresh citrus, 1940-41 to 1942-43

SEASON	NUMBER	AVERAGE PERCENTAGE OF SALES MADE							
BEGINNING OCTOBER	BEGINNING OF		DELIVERED	TERMINAL AUCTION ^b	OTHERWISE	TOTAL			
1940-41	6,107	30	30	40	(°)	100			
1941-42	5,259	34	30	36	(°)	100			
1942-43	6,201	51	21	28	(°)	100			

a Does not include sales to Government and Quartermaster Corps.

In 1940-41 chain stores made a greater percentage of their purchases from these associations on an f.o.b. basis than did independent buyers. In 1941-42 and 1942-43, however, each group purchased about the same percentages on an f.o.b. basis (table 11).

Table 11. - Sales to chain stores and independent buyers made by five cooperatives marketing Florida fresh citrus, by type of sale, 1940-41 to 1942-43

BUYER AND SEASON	PE	PERCENTAGE OF SALES MADE					
DUIEN AND SEASON	F.O.B.	DELIVERED	OTHER	TOTAL			
Chain stores:							
1940-41	56	44	(°)	100			
1941-42	52	48	(°)	100			
1942-43	70	30	(°)	100			
Independent buyers:							
1940-41	37	63	(°)	100			
1941-42	50	50	(°)	100			
<u>1942-43</u>	70	30	(°)	100			

^aSales other than terminal auction sales.

In contrast to the Florida, the California deal has been almost entirely on a delivered basis and no shift in selling has taken place in the few seasons just past. Delivered sales are preferred by the California

bNot considered a type but a method of sale. Carried to show total business of associations.

cLess than 1 percent.

b Season beginning October.

cLess than 1 percent.

Fruit Growers Exchange because it can more readily maintain orderly distribution if it retains control of the fruit until the final destination is reached. In many markets deliveries are made to the sales offices of the Exchange and through them the fruit is sold to local wholesalers.

Kinds of Buyers

In 1942-43 the five Florida citrus cooperatives together made proportionately fewer sales to chain stores and through terminal auctions and more to receivers and wholesalers (table 12). The increase in sales to receivers and other wholesalers is the outcome in part of the shift from auction sales to private sales and in part of the increase in direct distribution to smaller markets. These associations, together with others, reported that many new independent buyers were establishing direct personal contacts with the associations during 1942-43 and at the beginning of 1943-44 as a means of expanding their sources of supply. Such activity on their part undoubtedly helped them to get a larger percentage of the fruit shipped by the cooperatives.

Table 12. - Types of buyers patronizing five Florida fresh citrus marketing cooperatives, 1940-41 to 1942-43

SEASON	NUMBER	AVERAGE PERCENTAGE OF SALES MADE TO									
BEGINNING OCTOBER	OF SALES	CH AIN STORES	RECEIV- ERS	WHOLE- SALERS ^a BROKEF		TERMINAL AUCTION BUYERS	LOCAL, BUYERS	GOVERN- MENT AND Q.M.C.	OTH ER BUYERS	TOTAL	
1940-41	6,244	23	17	10	1	40	2	2	5	100	
1941-42	5,511	28	19	7	1	35	1	4	5	100	
1942-43	5,449	18	31	13	2	27	1	4	4	100	

a Includes jobbers and commission merchants.

In the two seasons, 1942-43 and 1943-44, the citrus cooperatives in California have continued to supply their regular customers within a market. When fruit has been scarce, the available supplies have been informally rationed on the basis of purchases in previous seasons. Many other fruit marketing cooperatives also indicated that preference was given to regular customers, particularly during periods of short supplies.

APPLES

Methods of Sale

The six Northwest apple marketing associations were increasing their percentages of sales through terminal brokers and sales direct to terminal buyers, and decreasing their percentage of sales to shipping-point buyers from 1940-41 to 1942-43 (table 13). However, in 1943-44, sales through terminal brokers have dropped from 63 percent to 24 percent, those to shipping-point buyers have increased considerably, and sales direct to terminal buyers have doubled twice.

b Includes shippers and truckers.

Table 13. - Methods of sale used by six Northwest apple marketing cooperatives, 1940-41 to 1942-43

		AVERAGE PERCENTAGE OF SALES MADE									
SEASON BEGINNING SEPTEMBER	NUMBER OF SALES ^a	TH ROUGH TERMIN AL BROK ERS	THROUGH SHIPPING POINT BROKERS	DIRECT TO TERMINAL BUYERS	DIRECT TO BUYERS AT SHIPPING POINT	THROUGH TERMINAL AUCTIONS	BY CON SIGN- MENTS	TOTAL			
1940-41 ^b	1 056	52	5	~	9.0	C	(d)	100			
	1,956		၁		30	6	, ,	100			
1941-42°	1,541	56	4	9	29	2	(d)	100			
1942-43	2,909	63	3	11	20	2	(a)	100			
1943-44	1,980	24	(^d)	45	30	1	(^d)	100			

aSales to Government and Q.M.C. not included.

The shortage of apples in 1943-44, together with the increased wartime demand, probably would have increased direct sales to buyers. Many of the sales here shown as direct to terminal buyers, however, were pool (l.c.l.) sales to a group of buyers. The majority of these sales were handled by brokers. The broker acted as agent of the buyer and, for this reason, the sales were classed as direct rather than as brokerage sales. The increase in sales direct to buyer at shipping point in 1943-44 is accounted for largely by the fact that some sales were made to the local associations' sales agent instead of through the agent, with the title changing hands at the shipping point. This method was not followed by all six associations.

Table 14. - Types of sale used by six Northwest apple marketing cooperatives, 1940-41 to 1943-44

011629 1940-41 00 1949-44											
SEASON	NUMBER	AVERAGE PERCENTAGE OF SALES MADE									
BEGINNING SEP TEMBER	OF SALES ^a	F.O.B.	DELIVERED	THROUGH TERMINAL AUCTION ^b	OTHER- WISE	TOTAL					
40.40 446											
1940-41°	1,956	92	2	6	(^e)	100					
1941-42 ^d	1,541	95	3	2	(^e)	100					
1942-43	2,909	96	2	2	(^e)	100					
1943-44	1,980	74	25	11	. (0)	100					

^aSales to Government and Q.M.C. not included,

Types of Sale

The apple marketing associations included in this sample made more than 90 percent of their sales f.o.b. in each of the three seasons prior to 1943-44, in that season they made only 74 percent (table 14.) The

^b5 associations.

c4 associations.

dLess than 1 percent.

Not considered a type but a method of sale. Carried to show total business of associations.

c₅ associations.

d4 associations.

eLess than 1 percent.

decline in f.o.b. sales has been accompanied by a corresponding increase in delivered sales. Delivered sales permitted shippers to take fuller advantage of the periodic increases of the ceiling prices. About a week before an increase would become effective sales would be made on a delivered basis, the price being determined after the car had reached its destination. Hence, the shipper would receive the higher prices for all apples in transit or arriving on the date of the increase in the ceiling.

Kinds of Buyers

Last season the six apple marketing associations decreased the percentages of their carlot sales to chain stores, receivers, intermediate sellers, and local buyers, and increased the percentages to brokers, l.c.l. buyers, and the Quartermaster Corps (table 15). Sales to l.c.l. buyers increased from 3 percent in 1942-43 to 29 percent in 1943-44. These l.c.l. buyers, of course, included other types of buyers, principally intermediate sellers, receivers, chain stores, and retailers. It was not possible to place them in these latter classifications because in many cases the sales were made by a broker and the ultimate buyers were not indicated.

POTATOES

Methods of Sale

The most important changes in selling methods of early-potato marketing associations during the period studied were proportional declines in 1943 in sales through brokers and in consignment sales, and a proportional increase in sales direct to buyers in terminal markets (table 16).

Table 15. - Types of buyers patronizing six Northwest apple marketing cooperatives, 1940-41 to 1943-44

		AVERAGE PERCENTAGE OF SALES MADE TO									
SEASON BEGINNING SEPTEMBER	NUMBER OF SALES	CHAIN STORES	RE- CEIV- ERS	WHOLE- SALERS	BRO- KERS	TERMI- NAL AUC- TION BUYERS	L.C.L. BUY- ERS	LOCAL BUY- ERS ^c	GOV- ERN- MENT AND Q.M.C.	OTH ER BUY- ERS	TO TAL
1940-41 ^d	2,146	20	31	8	5	5	1	9	9	12	100
	1		_						` -		
1941-42 ^e	1,711	14	35	9	7	1	1	13	10	10	100
1942-43	3,166	14	41	10	5	2	3	7.	8	10	100
1943-44	2,336	9	21	4	12	1	29	5	15	4	100

^aIncludes jobbers and commission merchants.

It was reported that an extremely heavy demand in 1943 for early potatoes brought considerably more buyers to shipping points than usual. Doubtless many of the sales to terminal buyers were actually made that year at shipping points, but it was not possible to determine the percentages since these buyers were all listed as operating in a terminal market.

^bLess-than-carlot buyers. Sales in this classification are carlot sales made to a group of buyers each of whom takes a part of the fruit in the car.

c Includes shippers and truckers.

^d5 associations.

e4 associations.

Table 16. - Methods of sale used by four southeastern early-potato marketing cooperatives, 1941 to 1943

SEASON	ATT OF THE	AVERAGE PERCENTAGE OF SALES MADE								
DD071077110	NUMBER OF SALES ^a	THROUGH TERMINAL BROKERS	THROUGH SHIPPING POINT BROKERS	DIRECT TO TERMINAL BUYERS	DIRECT TO BUYERS AT SHIPPING POINT	CONSIGN- MENTS	OTH ERWI SE	TOTAL		
1941	1,834	25	2	28	38	7	_	100		
1942	2,638	38	4	15	34	9	-	100		
1943	2,110	21	2	34	37	3	3	100		

^aSales to Government and Q.M.C. not included.

Types of Sale

In the two prewar seasons, 1941 and 1942, the four early-potato marketing associations sold about half of their potatoes f.o.b. and half delivered and price arrival (table 17). In 1943, however, the percentage of sales made by each of these methods declined while joint account sales, which had been of minor importance in previous seasons, accounted for more than one-fifth of total sales. Joint account sales increased because, for a time, shippers were permitted to share in the receivers' margins. The percentage of delivered sales continued rather high in 1943 largely because some of these cooperatives preferred to assume the transit risk and to receive the margin permitted for this service.

Table 17. - Types of sale used by four southeastern early-potato marketing cooperatives, 1941 to 1943

SEASON BEGINNING APRIL	NUMBER OF SALES ^a	AVERAGE PERCENTAGE OF SALES MADE							
		F.O.B.	DELIVERED	PRICE ARRIVAL	JOINT ACCOUNT	OTH ERWI SE	TOTAL		
1941	1,834	51	34	15	(b)	(b)	100		
1942	2,638	46	47	7	(b)	(b)	100		
1943	2,110	33	36	4	21	6	100		

^aSales to Government and Q.M.C. not included.

Table 18. - Sales to chain stores and independent buyers, by type of sale, made by four southeastern early-potato marketing associations, 1940 to 1943

BUYER AND SEASON	PERCENTAGE OF SALES MADE								
BEGINNING APRIL	F.O.B.	DELIVERED	PRICE ARRIVAL	JOINT ACCOUNT	OTH ERWI SE	TOTAL			
Chain Stores:									
1941	80	15	3	2	(a)	100			
1942	55	34	11	(a)	(a)	100 ,			
1943	32	36	11	13	8	100			
Independent Buyers:									
1941	32	41	23	(a)	4	100			
1942	38	54	4	(a)	4	100			
1943	35	3 7	(a)	26	2	100			

^{*}Less than 1 percent.

Less than 1 percent.

In potatoes, as in citrus, the chain stores purchased greater percentages from the four selected associations on an f.o.b. basis in 1941 and 1942 than did independent buyers, as is shown in table 18.

Kinds of Buyers

Proportionately sales by the four early-potato marketing associations to chain stores declined in 1943, and so also sales to receivers; sales to other types of buyers increased (table 19). For the first time sales were made that year to a Government agency, the Quartermaster Corps taking 12 percent. While statistical data are not available for the 1944 season, some of these associations reported marketing conditions to be similar to those of 1941 and 1942. It is probable, therefore, that receivers and chain stores purchased a greater percentage of the potatoes sold by these associations and that brokers largely discontinued their direct purchases. 12

Table 19. - Types of buyers patronizing four Southeastern early potato marketing cooperatives, 1941 to 1943

CEASON		AVERAGE PERCENTAGE OF SALES MADE TO								
SEASON BEGINNING APRIL	NUMBER OF SALES	CHAIN STORES	RECEIV- ERS	WHOLE- SALERS ^a	BROKERS	LOCAL _b BUYERS	GOVERN- MENT AND Q.M.C.	OTH ER BUYERS	TOTAL	
1941	1	40	37	14	2	5	_	2	100	
1942	2,638	45	37	11	2	2	_	3	100	
1943	2,399	30	27	13	6	6	12	6,	100	

^aIncludes jobbers and commission merchants.

DISTRIBUTION BY SIZE OF MARKET 13

CITRUS

In the last two seasons the percentage of citrus fruit shipped direct by rail to the large population centers has fallen while the percentages of direct carlot shipments to medium and small markets have risen (figure 1). This shift can be attributed to the decline in truck transportation from the terminal markets to outlying cities and towns and from shipping points direct to local markets within the area normally served by trucks. Also contributing to this shift is the decline in terminal auction selling. Further, the efforts of wholesalers in smaller markets to get their supplies direct from the producing areas rather than at the terminal markets, as they usually do in periods of scarcity, has had its effect. The transportation situation doubtless was the basic factor. Florida and Texas, where the truck movement normally is rather substantial, would be most affected (table 20).

Includes shippers and truckers.

¹²Reports from Maine Potato Growers, Inc., also indicate that no noticeable trend in buyer types has developed in their operations during the last four seasons. However, they reported that many persons who had never handled potatoes previously purchased both table and seed stock for future delivery in 1943. A greater number of sales also were made in the 1943-44 season to smaller wholesalers, many of whom had never before purchased potatoes direct. The opinion was expressed that these changes do not indicate a trend but rather reflect abnormal wartime conditions.

¹³Data on distribution by size of market are given for total area shipments as volume figures of the associations are too limited to show conclusively distribution trends.

RAIL SHIPMENTS OF CITRUS FRUIT, APPLES, AND POTATOES FIGURE

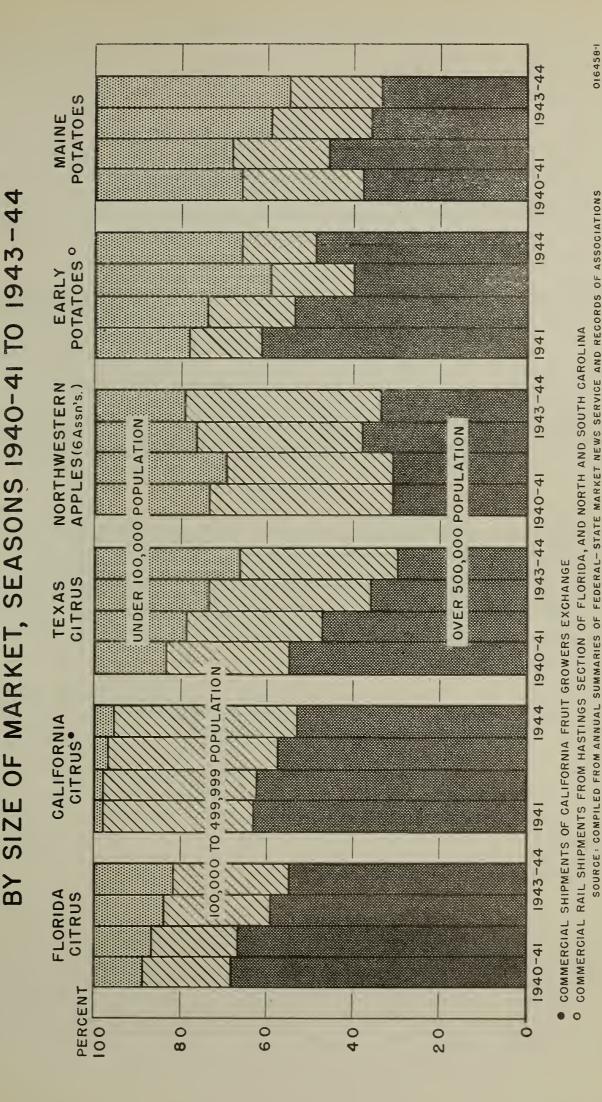


Figure 1. - Increase in the percentage of carlot shipments to shaller markets has been due mainly to a shift from truck to rail transportation in supplying nearby areas and cities and towns normally supplied from terminal markets.

The larger percentages shipped by rail, of course, do not represent any net increase in shipments to smaller markets, since for the most part the change here indicated in citrus distribution probably is only the result of a shift from truck to rail transportation.

APPLES

Data on the distribution of all shipments of Northwest apples are not available. The figures presented in figure 1 cover the shipments of only six associations, which handle a small part of the total volume of the area. They should, therefore, not be considered representative of all northwestern shipments.

The distribution of shipments of these associations has shown no significant change in the last four seasons. From 30 percent to 38 percent has gone to the larger markets, 38 percent to 45 percent to medium-sized markets, and from 21 percent to 31 percent to the smaller markets. The freight equalization plan in effect on western apples in 1943-44 probably has been a factor in maintaining the established distribution pattern. 14 The general decline in truck transportation has not had the same effect on apples as on the distribution of citrus fruits and potatoes, since only a small percentage of western apples normally are shipped by truck.

POTATOES

The percentage of carlot shipments of early potatoes, as well as late potatoes, to large markets was smaller in the last two seasons than in 1940-41 and 1941-42 (figure 1). The percentage of early potatoes going to these large markets, however, has been greater in 1944 than it was in 1943. The net decline of shipments of early potatoes to large markets was offset mainly by increased shipments to cities and towns of less than 100,000 population.

The most notable change in the movement of early potatoes occurred in 1943, when shipments to terminal markets declined 14 percent and shipments to the small markets increased 15 percent. Primarily this increase was due to expanded distribution in the southeastern States. Carlot shipments of early potatoes from the areas indicated in figure 1 to markets in the Southeast¹⁵ increased from 1,000 carlots in 1942 to 3,000 in 1943. Probably these figures represent a net increase in sales in this area since the movement by truck, much of which would be into these States, was increased both from the Hastings section of Florida and from North Carolina.

¹⁴ Commodity Credit Corporation, United States Department of Agriculture, Apple Program, Form 1, Amendment 1 - Part 242 - Apple Freight Equalization Payment Program, states, "In order to encourage and maintain equitable distribution of apples to all consuming areas and to return to the growers in Washington, Oregon, and western Idaho, a price equivalent to that obtained by producers of apples in other producing districts on a basis consistent with the maintenance of price ceilings ... Commodity Credit Corporation ... offers to make freight equalization payments ... for the benefit of whosever shall pay the transportation charges thereon...".

¹⁵Mississippi, Alabama, Tennessee, Kentucky, Florida, Georgia, South Carolina, North Carolina, Virginia, and West Virginia.

TRANSPORTATION

A gradual increase in the use of motortrucks for transporting fresh fruits and vegetables to market has taken place since World War I. This trend has now been interrupted by World War II. Tire and gasoline rationing and discontinuance of truck manufacture for civilian use have served to restrict truck shipments of perishables, as well as other commodities. Boat shipments also have been a casualty of the war. The submarine menace in 1942 and 1943 and the shortage of bottoms have practically eliminated domestic boat shipments of fruits and vegetables. The railroads thus have had the task of moving a greater share of this produce to market. Their short haul business, from which the rails had been largely excluded, has increased materially. As already stated, the wartime trucking situation has been a factor in the increase of shipments direct by rail to smaller markets and in the decline in the percentage of shipments to terminal markets.

Table 20 indicates the methods of transportation used by the five citrus associations in Florida, the Rio Grande Valley Citrus Exchange, and the four early-potato marketing associations. The decrease in truck shipments in Texas in 1941-42 was caused partly by reductions in railroad freight rates, but the principal reason was the shortage of trucks, tires, and gasoline.

Table 20. - Methods of transportation used by six citrus cooperatives in Florida and Texas and four southeastern early-potato cooperatives, 1940-41 to 1943-44

ASSOCIATION AND SEASON a	NUMBER OF	AVERAGE PERCENTAGE OF SALES TRANSPORTED BY					
	SALES	RAILROAD	TRUCK	BOAT	TOTAL		
Five Florida citrus cooperatives:							
1940-41	6,244	76	17	7	100		
1941-42	5,511	82	18	(b)	100		
1942-43	6,449	90	10	-	100		
Rio Grande Valley Citrus Exchange:							
1940-41	2,334	51	49	-	100		
1941-42	4,007	69	31	-	100		
1942-43	6,016	82	18	_	100		
1943-44	6,984	77	23	-	100		
Four Southeastern early potato marketing cooperatives:							
1941	1,834	84	14	2	100		
1942	2,638	91	9	-	100		
1943	2,399	81	19	-	100		

a Season beginning November in California and October in Florida and Texas.

bLess than 1 percent.

The increase in truck shipments of early potatoes in the spring of 1943 reflects an exceptional market situation. The general scarcity of potatoes induced merchant truckers to come into the producing areas for supplies and as a result truck shipments rose from 9 percent in 1942 to 19 percent in 1943. Figures for 1944 are not available from the four potato marketing associations. However, the report of the Federal-State Market News Service for the Hastings section of Florida indicates that only 4 percent of the total shipments were moved by truck in 1944.

MEMBER PATRONAGE

In general, it was found that members patronized their associations in wartime as they had in prewar years, although in all areas there was opportunity at times to sell outside the associations. At the beginning of each season, outside buyers offered to purchase entire crops field run or orchard run at a fixed price. From all reports only a few such deals were entered into by grower-members.

However, a most acute situation developed in the early-potato deal in the spring of 1943. Three of the four cooperatives included in this study indicated that members sold outside their associations. One of the three reported that only one member had sold his entire output through the cooperative. The volume of this association declined so that its operations have been suspended since 1943. In contrast, another association reported that some members who had sold potatoes direct to buyers nevertheless had paid the associations for handling costs. It was estimated that these direct sales totaled about 15 percent of the volume of the cooperative.

Membership has been increasing since 1940-41 in most of the Florida and Texas citrus associations and in the Northwest apple associations. Many have a waiting list of applicants and have been able to accept only the better producers. Some were limited in ability to add members by difficulty or the impossibility of expanding facilities during wartime. Under such conditions it was possible to take on additional volume only to the point of maximum utilization of present equipment.

Growers have sought to become affiliated with cooperative marketing associations for various reasons. The complete services of grove caretaking and picking and hauling offered by citrus associations have been the largest single factor in Florida. Individual growers have been less able to get workers, supplies, and facilities to carry out these operations than have associations that offer steadier employment and obtain supplies from wider sources.

One cooperative manager stated that growers want to sell through cooperatives because they obtain better returns than from private organizations. Under a sellers' market, distribution margins (including shipping point margins) widen and private operators retain as much of this increase as possible in the form of profits, whereas the cooperatives refund their margins over cost in patronage refunds to their patrons.

Several managers stated that private shippers have been plagued by the influx of outside buyers to a much greater extent than cooperatives. Private shippers usually have no contracts with growers. They buy for cash in direct competition with every other cash buyer for the grower's product.

Some citrus associations in California have experienced small net decreases in membership since 1942 due primarily to the sale of groves to nonmembers. Some of these purchasers were unfamiliar with cooperative marketing and apparently prefer to sell for cash. A few require financing of the shoestring variety and in this cooperatives were unwilling to participate.

LABOR PROBLEMS OF ASSOCIATIONS

Fruit and vegetable cooperatives, in common with other packers and processors, have been faced with a diminishing labor supply during the whole period covered by this study. This shortage has been more acute in those areas adjacent to war industries where higher wages could be earned. The difficulty in getting enough packing-house workers has been accentuated by the disparity between wages of pickers and wages of packing-house employees. The ceiling imposed on packing-house wages held them to specified levels; while wages for harvesting, in general, were not stabilized and rose substantially above those paid for work in the packing and storage houses. The situation in some packing houses became so acute as to reduce the amount of fruit packed, even though it was needed greatly under wartime conditions.

Serious labor shortages in many areas have been averted through the employment of Bahamans, Mexican nationals, and prisoners of war. There were about 30,000 Mexican nationals working in the western States in the spring of 1944. Several thousand Bahamans helped harvest potatoes and vegetables in the southeastern States and German and Italian prisoners of war assisted in harvesting and warehousing fruits and vegetables in many sections. The United States Employment Service and the Extension Service assisted in getting workers for harvesting, packing, and processing fruits and vegetables.

Much of the labor recruited for picking and packing was inexperienced. This lack of experience and consequent inefficiency of new workers increased supervision expense and operational costs until higher labor cost became the largest single factor contributing to the increase in packing costs. This labor situation also made the maintenance of grading and packing standards more difficult.

PRICE TRENDS AT SHIPPING POINTS AND IN NEW YORK CITY

Prices and margins received for fresh fruits and vegetables sold by the associations included in this sample were not recorded 16 on an annual

¹⁶Some price data were taken to substantiate the observation that variations in price due to differences in quality generally disappeared when prices remained at ceiling levels, except in those cases in which ceilings were on a grade basis.

basis. Gross margins could be presented only on a seasonal basis because of the pooling of returns to growers. They would not indicate the effects of monthly price changes, nor the effects of sales at ceiling prices on margins. Further, it was considered impracticable to use the selling prices of the associations as a basis for ascertaining their distribution margins unless prices at both the wholesale and the retail levels also were determined for the specific carlots or trucklots used. Such procedure was beyond the scope of this study.

However, since it seemed desirable to present data on changes in prices and margins for the period under review, information from other sources was utilized. Retail prices were obtained from the Bureau of Labor Statistics and wholesale and farm prices from the Market News Service and the Bureau of Agricultural Economics, of the United States Department of Agriculture. The average prices that were selected include farm prices and shipping-point prices of oranges in California and Florida, apples in New York and Washington, and potatoes in Maine; and wholesale and retail prices in New York City of each of these commodities. 17

The data were useful mainly in portraying the trend in prices over the period covered by this study. The differences between the various price levels should not be considered as the margins obtained for the various functions of distribution, because there are many variations in the methods of reporting the prices used. For example, prices received by farmers are reported on an ungraded basis, shipping point and wholesale prices are reported generally for U. S. 1 grades, retail prices are representative prices for the most common grades and classes of a commodity from all shipping points.

The average prices of oranges, apples, and potatoes, as shown in figures 2, 3, and 4, have increased rather steadily, and at times sharply, although seasonal declines are apparent in almost every marketing season. Prices at the various levels of distribution generally became farther apart as they advanced. This is indicated by the divergence between prices received by farmers and f.o.b. (or shipping point) prices and the divergence between wholesale or auction and retail prices. Only the difference between f.o.b. and wholesale prices, while varying considerably at times, has been maintained at about the same degree for the period as a whole.

Increases in packing and harvesting costs have been the dominant cause of the wider spread between prices received by farmers and f.o.b. prices. Higher wages paid to both field and packing house employees contributing

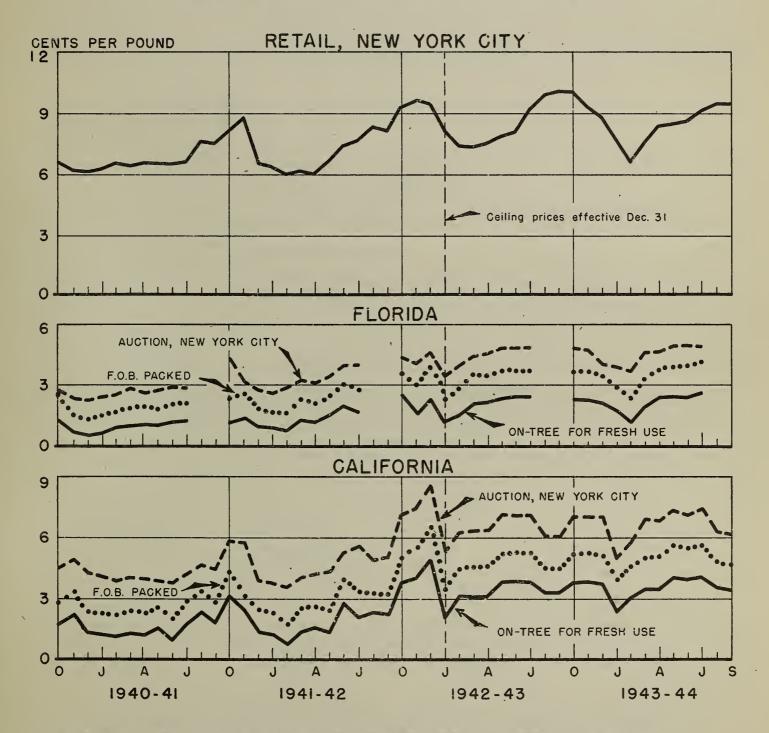
A check of the prices that are available for early potatoes was made, however, and the general trend of prices and price spreads appeared to be the same as those of Maine potatoes. Therefore, the price trends shown herein probably reflect those of early potatoes although the

actual prices are not comparable.

¹⁷ Prices of potatoes from the early producing areas are not presented because the season in each area is so limited that short run price trends are difficult to establish. The quantity sold in any one market also is too small to permit any reliable comparison to be made between prices at the various levels of distribution. Maine potatoes, in contrast, are marketed during 8 months or longer in each season and also large quantities are sold in the eastern cities. For example, an average of 50 percent of the unloads of potatoes in New York City, from October to May, originate in Maine.

FIGURE 2

AUCTION, SHIPPING-POINT, AND ON-TREE PRICES OF CALIFORNIA AND FLORIDA ORANGES AND NEW YORK RETAIL PRICES OF ALL ORANGES SEASONS 1940-41 TO 1943-44



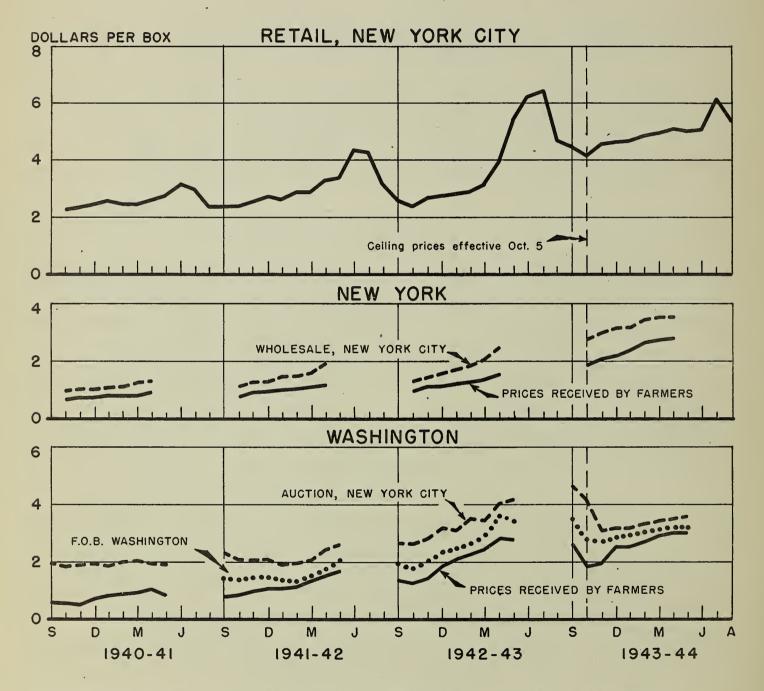
SOURCE: BUREAU OF LABOR STATISTICS, U.S. DEPARTMENT OF LABOR; WAR FOOD ADMINISTRATION; AND BUREAU OF AGRICULTURAL ECONOMICS, U.S. DEPARTMENT OF AGRICULTURE.

016458-2

Figure 2. - Heavy production and ceiling prices on oranges have served to hold prices at fairly uniform levels in 1942-43 and 1943-44. Price spreads also appear to have remained fairly stable with some increases occuring between on-tree and f.o.b. packed prices, reflecting largely an increase in labor cost for picking and packing-house operations.

FIGURE 3

WHOLESALE, SHIPPING-POINT, AND FARM PRICES OF NEW YORK AND WASHINGTON APPLES AND NEW YORK RETAIL PRICES OF ALL APPLES SEASONS 1940-41 TO 1943-44



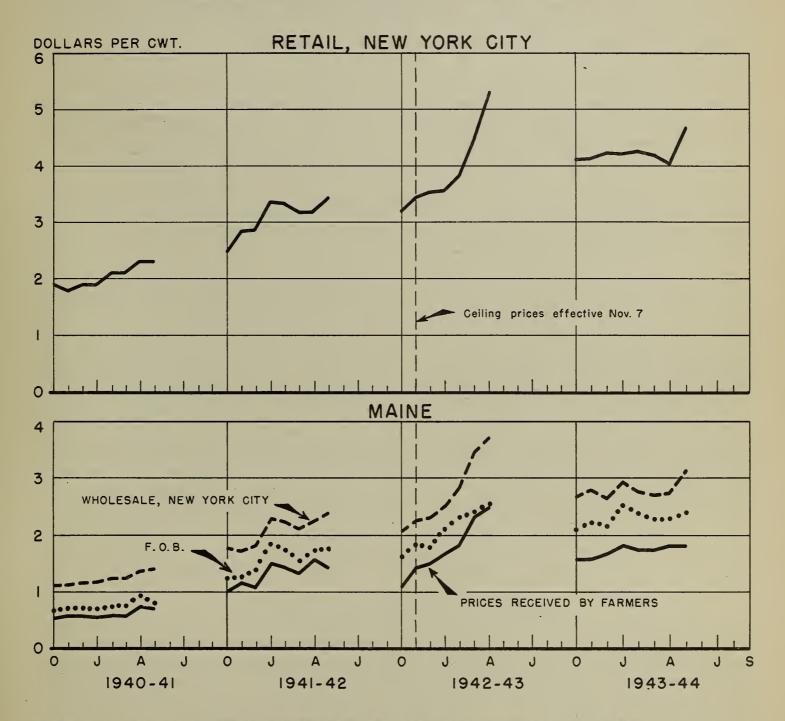
SOURCE: BUREAU OF LABOR STATISTICS, U.S. DEPARTMENT OF LABOR; WAR FOOD ADMINISTRATION; NEW YORK STATE DEPARTMENT OF AGRICULTURE AND MARKETS; BUREAU OF AGRICULTURAL ECONOMICS, U.S. DEPARTMENT OF AGRICULTURE; WASHINGTON GROWERS CLEARING HOUSE ASSOCIATION, INC., WENATCHEE, WASH.

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Figure 3. - Ceiling prices for apples became effective in October 1943 and undoubtedly kept prices from rising sharply throughout the season since the commercial crop was less than 75 percent of the 1934-42 average. The spread between wholesale prices and prices received by farmers in New York State increased in the 1943-44 season while the spread between auction prices in New York and prices received by farmers in Washington decreased, primarily because of the freight subsidy in effect on western apples after October 1943.

FIGURE 4

WHOLESALE, SHIPPING-POINT, AND FARM PRICES OF MAINE POTATOES AND NEW YORK RETAIL PRICES OF ALL POTATOES SEASONS 1940-41 TO 1943-44



SOURCE: BUREAU OF LABOR STATISTICS, U.S. DEPARTMENT OF LABOR; WAR FOOD ADMINISTRATION; AND BUREAU OF
AGRICULTURAL ECONOMICS, U.S. DEPARTMENT OF AGRICULTURE.
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Figure 4. - The increases in wholesale and farm prices of Maine potatoes and in retail prices of all potatoes since the 1940-41 season have been accompanied by a greater price spread between the grower and consumer. This spread has increased approximately 35 cents per hundredweight each season. A check of the prices of early potatoes indicated that the trend in prices and price spreads was similar to that of Maine potatoes.

most to the increase in costs. Higher prices of containers and other supplies also have been a factor.

Distributors in consuming centers apparently have been able to obtain greater returns for their services because of the strong wartime demand for fresh fruits and vegetables with the resulting emphasis on buying rather than selling. Part of this increase was necessary as distributing costs have been higher, much of the difference going into wages and salaries. On the other hand, the risks in handling produce are minimized when trading on a rising market and when the quality and condition of products is not of prime consideration to purchasers.

Doubtless prices would have gone even higher except for price control. In some instances they were maintained at ceilings during all or most of the season. For example, apples were at the ceiling in the 1943-44 season, as were California oranges during most of the 1942-43 and 1943-44 seasons. It is not possible to determine whether price spreads would have been wider or narrower without ceilings. In a period of rising prices, however, there is a tendency for absolute margins to become greater. Thus, it is probable that price spreads would have increased even if ceilings had not been in effect.

Permissible retail and wholesale mark-ups generally have been considered adequate and it is believed that retailers and wholesalers usually have been able to obtain satisfactory returns for their services under the present system of price control. Distributors have been permitted to add their allowable mark-up to their supplier's ceiling price even though they purchased the commodity below that figure; thus, it has been possible at times for them also to obtain liberal margins when shipping point prices were below the ceiling price. For example, the average monthly shipping point prices of Maine potatoes were below ceiling during all the 1943-44 season except in January, although the spread in New York between the wholesale prices of Maine potatoes and the retail prices of all potatoes was greater than for any period shown except toward the end of the 1942-43 season. 18 The spread between wholesale and retail prices of both Washington and New York apples also appears to be wider in 1943-44, when ceiling prices have been in effect, than during the three previous seasons.

NEED TO PREPARE FOR CHANGES

To look ahead as far as possible and with an eye on the many changes that have taken place during wartime, it is important that fruit and vegetable cooperatives lay plans for the future. They must consider which wartime changes will be useful or necessary in postwar. Then the decision will have to be made as to which old practices will be revived and which ones should be disregarded and replaced by entirely new ideas.

In the immediate postwar period it is probable that production will remain at about present levels for these fruits and vegetables although some may be in greater or less supply. If the present national income

¹⁸In February, March, and April 1943, the average shipping point price was above the f.o.b. ceiling due to the diversion of seed potatoes to table stock.

level is maintained it may result in a gradual increase in supply and a decrease in price. If national income declines, a rather rapid downward price adjustment probably will take place. In either instance it is likely that per acre or per unit returns to growers will decline.

Factors other than the national income level also affect the demand for fresh fruits and vegetables. The supply of competing foods, increases in population, and shifts in consumption habits may cause an increase or a decrease in demand for these commodities.

In a general way, the demand for fruits and vegetables has been greater than the supply during the war period. It is very unlikely that this situation will continue. If it does not, in terms of the trade, there will again be a "buyer's" market rather than a "seller's" market, and competition will be the rule. To curb harmful competitive situations, too often experienced in the past, orderly marketing programs will need to be continued and expanded.

War programs for fruits and vegetables will probably be dispensed with when the danger of inflation is past and the influence they have exerted on grading and sales practices will cease. Some wartime changes, however, as selling some products on a weight basis rather than a count basis, may be adopted for peacetime as they are judged to have advantages for both buyer and seller.

It is expected that agricultural labor will be more plentiful in the years ahead. Wage rates, however, may remain at relatively high levels. This should accelerate the trend toward increased use of machinery for harvesting and packing fruits and vegetables.

Based on the assumptions of a somewhat lower demand, absence of wartime controls, increased competition for markets, and more liberal supplies of labor, it seems likely that the following readjustments and innovations may take place along with others that cannot be foreseen at present.

Effect on Grading

Most cooperatives endeavored to maintain their standards of operation during the war so far as conditions would permit. It was possible, however, to sell increased quantities of the lower grades of citrus fruits, apples, and early potatoes, as well as of other fruits and vegetables. Grade standards were relaxed in some instances, not so much because of carelessness as the result of the inexperience of labor employed and the willingness of buyers to accept products of lower quality and condition.

Prior to the war, grading practices in selling fruits and vegetables were developed largely to meet the requirements of wholesalers and retailers, with little emphasis on consumers' needs. Too often grades are not true measures of the intrinsic value of the product to the ultimate user.

It would seem to be sound policy for the cooperatives who have always advocated grading and standardization to assume the responsibility and leadership in extending grade standards to the consumer level and in making these standards known to consumers so that they may make a more intelligent selection of products.

It may be necessary also in the future for cooperatives to tighten up their grade standards in order to give consumers of various income levels a range of choice related to their needs and pocketbooks.

Packing

During the war period many frills in packaging were discontinued, the number of types of containers were reduced, and the wrapping of fruit was suspended in many instances, particularly during periods when prices were at the ceiling. As in the case of grading, most of the styles and vogues in containers were initiated and adopted in order to gain the favor of the trade. They usually added little to the actual utility of the package.

A further reduction in types of wooden containers, through the elimination of odd sizes and the use of certain types of containers for several commodities should reduce package costs which would benefit both producers and consumers.

Consumer packaging at shipping point and perhaps to a lesser extent in terminal markets is one of the most significant developments that can be expected. Such consumer-size containers already have been used extensively for late potatoes and recently for Florida and Texas oranges and grapefruit. Cooperatives handling citrus fruits, apples, potatoes, or other fruits or vegetables should investigate the possible advantages in merchandising that consumer packaging offers. Since a number of both the larger chain-store organizations and independent stores are favoring such handling for perishables, it may be an important means of expanding sales outlets.

New types of wraps that prolong the freshness of fruits and vegetables have been developed recently. Experiments are now being conducted on the use of pliofilm and other transparent films for fruit and vegetable wraps. Paper wraps and paper bags impregnated with diphenyl have been tried on an experimental basis for citrus fruits.

It does not take too much imagination to see oranges or grapefruit, for example, mechanically sealed in transparent wraps and packed in 8- or 10-pound mesh bags, a number of which in turn would be placed in a larger container. Such a procedure would answer current objections of the wholesalers to handling the small bags and should greatly reduce retail handling and spoilage. It should be possible thus to reduce retail margins below those that have prevailed for fresh fruits and vegetables.

Sales Practices

Changes in the sales programs of many cooperatives came about mainly because of price ceilings, extraordinary demand, and sometimes short supplies. Associations were largely able to choose the methods of sale that appealed to them as offering the largest returns and the least risk in shipment and in selling; whereas, before the war, buyers and receivers had a greater part in determining the mechanics of sale. 19

In the future it is likely that buyers again will be in a better position to choose the method and type of sale they desire. An individual association with limited volume cannot expect to be the dominant party in a sale. However, the direct contacts that have been developed by some associations with receivers, large jobbers, and local chain-store and independent retailers may make it possible for them to effect some savings in distribution.

Associations would be in a much stronger position to hold their gains in selling methods through co-ordinated group action, particularly those handling commodities of which a considerable quantity is marketed cooperatively.

Cooperatives should be alert to the possibilities of integration and the streamlining of marketing functions which can bring about savings in distribution costs.

Merchandising programs aimed at wider distribution should be instituted. Advertising and dealer service work which has been reduced during the war may need to be expanded.

Cooperatives may find it profitable to study population shifts and trends with a view to getting greater representation in those markets that have had large increases in population. More attention also might be given to improving distribution into rural areas. Many small markets have not been adequately supplied during the war because it is more costly to service them. Rural markets should offer possibilities for increased sales providing ways can be devised to serve them economically.

Transportation

Many improvements and changes in transportation are expected in the post-war period. They should result in both lower costs and improved distribution. Since transportation accounts for approximately 25 percent of the total cost of distribution, considerable savings may be gained through a reduction in transportation charges.

New refrigerated cars and trucks have been designed that will preserve the freshness of perishable vegetables and fruits over comparatively long periods of time. Faster and more efficient railroad and truck service may become a reality. It is probable also that integrating of truck, rail, and boat shipments will become more common. Transportation of highly perishable fruits and vegetables by plane appears to be a distinct possibility. Many experimental shipments have been made since 1943 although the practicability of commercial use of air shipment is still unknown.

¹⁹See page 66 of reference cited in footnote 3.

DEFINITION OF TERMS USED IN THIS REPORT

Brokers 20 - Are those who represent distant shippers in selling goods. Buying brokers act as purchasing agents for distant buyers.

<u>Chain stores</u> - Buying organizations are classed as chain stores if they are so regarded in the territory or are subsidiaries or affiliates of such an organization. In this group are local, regional, and national organizations.

Commission merchants²⁰ - Those who receive consignments to sell upon commission.

Government - This term refers to purchases by all agencies of the United States Government including the Surplus Marketing Administration and institutions.

<u>Jobbers</u> 20 - Those who sell to retailers; and who purchase their supplies in carlots or less from receivers on their home market.

L.c.l. buyers - "Less than carlot" buyers in this case refers to buyers at destination points, each of whom receives part of a carlot.

Merchant truckers - By merchant trucker is meant the trucker-dealer who does not operate an established store. He might also be designated as a trucker-jobber.

Q.M.C. - Quartermaster market centers purchasing for all branches of the armed forces.

Receivers 20 - Firms at destination points who buy from shippers, and resell to wholesalers in their city or in the immediate surrounding territory, either in straight carlots or in lesser lots. While in the latter case such firms "ship" to their country trade, they are not classified as "shippers."

Shippers 20 - Those who purchase from growers and load chiefly at initial points, or at intermediate points purchase shipments and divert (in carlots) to their distant trade at destination points.

Other buyers - This refers to all buyers not included in the preceding groups, such as independent retailers, wholesale grocers, and processors.

<u>Delivered</u>²⁰ - Delivered sale is one where the seller agrees to assume all in-transit risks and transfers title to the buyer at the destination specified.

F.o.b.²⁰ - The initials f.o.b. (free on board) imply that the seller will protect the buyer from any expense attending the bringing of the goods to

²⁰ Produce Report Company Blue Book of 1944.

or upon the vehicle or conveyance specified, or to the point named. Any risk in transit, deterioration, delay, destruction, shrinkage, or the like, must be borne by the buyer. The buyer has the right of inspection upon arrival for the purpose of determining that the goods were responsive to order at time of shipment.

Joint account 20 - A joint account is a special, equal partnership in profits and losses on the part of Shipper and Receiver. The Shipper shall be responsible for payment for purchases at the loading point. The Receiver shall be responsible for collecting for sales at destination.

Price arrival²⁰ - The term "price arrival," in the absence of a contrary specific understanding, shall be deemed to mean that the produce is shipped either direct to the customer or to an agent of the shipper, for the benefit of the customer, the price to be subject to agreement between the customer and the shipper upon the arrival of the goods at the customer's destination and with sufficient time being permitted for inspection.

Terminal auction - This term means that the sale was made at one of the 12 terminal fruit auctions.

²⁰ Produce Report Company Blue Book of 1944.

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